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North Star Intellectual Property Law, PC  
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Washington, DC 20043

EXAMINER
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SCHWARTZ, DARREN B

ART UNIT	PAPER NUMBER
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2435

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/523,797	<b>Applicant(s)</b> PARK, SEUNG-BAE	
	<b>Examiner</b> DARREN SCHWARTZ	<b>Art Unit</b> 2435	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) 33-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-32 and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Applicant amends claims 21. Claims 33-39 remain withdrawn from consideration.

Claims 21-32 and 40 are presented for examination.

### ***Response to Arguments***

1. Applicant states on page 8 of Remarks: "On March 11, 2010, the Applicant filed a Request for Continued Examination (RCE) with an Amendment Accompanying RCE that was intended to be the same as the Amendment After Final Office Action of February 11, 2010."

The Examiner reminds Applicant that the intentions of Applicant or Applicant's Council are mere hearsay and do not supplant the written record. As the record stands, Applicant presented duplicated correspondence and the record clearly memorializes these facts.

The Applicant continues: "However, due to an inadvertent error, as recognized by the Office in item 2 on page 2 of the Office Action of March 24, 2010, the Amendment Accompanying RCE of March 11, 2010, is actually the same as the Amendment Submitted with RCE of May 14, 2009."

The Examiner clarifies this "inadvertent error" was not on part of the Office, but in what the Office received. More specifically, the Applicant furnished the Office with these documents. The Examiner acted upon these documents in compliance with the MPEP, standing procedure and the Examiner's Supervisory Patent Examiner.

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2. As per the agreement established amongst the Applicant, the Supervisory Patent Examiner and the Examiner, prosecution has been sustained.

However, the Examiner reminds Applicant: "resorting to technical or other obvious subterfuges in order to keep the application pending before the primary examiner, can no longer find a refuge in the rules to ward off a final rejection."

3. In light of Applicant's arguments and amendments to the claims, the Examiner withdraws the claim rejections under 35 U.S.C. 101.

Applicant's arguments filed 16 June 2010 regarding the claim rejections under 35 U.S.C. 102 and 35 U.S.C. 103 have been fully considered but they are not persuasive.

4. Applicant argues on pages 10-11 of Remarks, "However, none of the above-cited portions of Martino disclose or suggest, 'receiving the password from a user matching a symbol within the certain cell of the matching board with a password symbol within the first cell of the reference board, to authenticate the received password.'"

The Examiner disagrees and maintains the same position in earlier correspondence. Martino teaches a plurality of manipulators that loop the elements in their respective row or column (col 4, lines 43-52; col 5, lines 26-29). Martino further determines whether or not the SYMBOLS which correspond to the user's KEY STATE are in correspondence to one another.

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5. Applicant argues on page 11 of Remarks, “Martino merely shifts rows or columns having symbols therein to be positioned within a certain predetermined KEY STATE definition, and does not match symbols of two different cells.”

The Examiner disagrees. The fact that Martino is shifting rows or columns having symbols into desired position that constitutes a KEY STATE in effect constitutes matching these symbols of a plurality of cells into the desired KEY STATE.

6. The Examiner withdraws Cheol-Shin et al without prejudice.

7. Applicant argues on page 11 of Remarks, “Martino does not change positions of cells of a reference board while keeping cells of a matching board the same.”

The Examiner disagrees. Martino teaches:

“FIG. 4 is an example of the ARRAY of FIG. 3 having the KEY SYMBOLS (B1, A1, C2, D1) in the proper KEY STATE defining the users PIN. In this example, the manipulation of the array would require 12 steps. These steps are: three presses of button 318(a) so as to shift symbol B1 three places to the left, three presses of button 318(b) so as to shift symbol A1 three places to the left, two presses of button 318(c) so as to shift symbol C2 three places to the left and four presses of button 318(d) so as to shift symbol D1 four places to the left. In general, with the embodiment described here, vertical transformations (accomplished by pressing manipulator buttons 318(e)-318(h)) would also be required to achieve the user's KEY STATE (illustrated in FIG. 4) from the initial ARRAY STATE (FIG. 3) but, for simplicity's sake, are not required in this example.

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Shifting is, of course, just one example of how the state of a symbol can be transformed. Other types of transformations (e.g. color, shape or orientation changes) can be used as an alternative as long as the MANIPULATORs affect groups of SYMBOLs without identifying any specific SYMBOLs in the group as unique. In other words, the set of symbols to be manipulated is identified by the user as a whole" (col 5, line 55 – col 6, line 10).

Ergo, a user may only obtain their desired KEY STATE by using these manipulators starting from the initial KEY STATE (col 3, lines 62-65). Since the user manipulates the ARRAY STATE using one manipulator at a time, this meets Applicant's claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 21-24, 26-32 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Martino et al (U.S. Pat 5276314 A), as cited in the IDS dated 08 February 2005, hereinafter referred to as Martino.

Re claim 21: Martino teaches a method of inputting a password for authentication in a user authentication system (col 3, lines 14-15), the method comprising:

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displaying a matching board [Fig 3, elts: D3, A1, D2, B0; Fig 4, elts: B0, D3, A1, D2] comprising a certain cell [Figs 3 & 4, elt: A1] and at least one other cell [Figs 3 & 4, elt D2, for example] and a reference board [Fig 3, elts: C1, D0, A3, C2; Fig 4, elts: A3, C2, C1, D0] comprising a first cell [Figs 3 & 4, elt C2] and at least one other cell [Figs 3 & 4, elt D0] on a user interface (Fig 1, element 106; col 2, lines 46-51); and

receiving the password from a user matching a symbol within the certain cell of the matching board with a password symbol within the first cell of the reference board to authenticate the received password (Fig 2, elt 232 & 234; col 4, lines 53-56; col 5, lines 4-19);

such that the matching board moves (col 5, lines 20-33) to allow the certain cell [Fig 3, elt "A1" & Fig 4, elt "A1"] of the matching board [Fig 3, elts "D3,A1,D2,B0" & Fig 4, elts "B0,D3,A1,D2"] to correspond with the first cell [Fig 3, elt "C2" & Fig 4, elt "C2"] of the reference board [Fig 3, elts "C1,D0,A3,C2" & Fig 4, elts "A3,C2,C1,D0"] in response to the certain cell and the first cell not already being in correspondence with one another (Fig 3, rows two and three are manipulated until, Fig 4, elts A1 & C2 are in proper "correspondence" with one another, thus forming the users KEY STATE; col 5, lines 55-56; col 5, lines 61-64),

wherein positions of the first cell [Fig 3, elt "C2" & Fig 4, elt "C2"] and the at least one other cell [Figs 3 & 4, elt C2] of the reference board [Fig 3, elts: C1, D0, A3, C2; Fig 4, elts: A3, C2, C1, D0] are altered (col 5, lines 59-64) and

positions of the certain cell and the at least one other cell of the matching board are not altered in response to the certain cell and the first cell not already being in

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correspondence with one another (Fig 2, elts 224, 226; col 4, lines 53-59; col 5, lines 26-29; col 5, lines 59-64; *the user engages the graphical user interface by using the manipulators to move, as per the example given by Martino, the different rows; the rows are rotated one-at-a-time based on the users use of the manipulators until the KEY STATE is achieved; if the user's KEY STATE has not been achieved, then the user's KEY STATE is not matched and thus the symbols do not match, ergo, they have not achieved a "correspondence" of the KEY STATE*).

Re claim 22: Martino teaches the receiving comprises receiving the password corresponding to a combination of the certain cell [Fig 3, elt "A1" & Fig 4, elt "A1"] of the matching board [Fig 3, elts "D3,A1,D2,B0" & Fig 4, elts "B0,D3,A1,D2"] matched by the user with the first cell of the reference board [Fig 3, elts "C1,D0,A3,C2" & Fig 4, elts "A3,C2,C1,D0"] having the password symbol [Fig 3, element C2 and Fig 4, element C2] (col 5, line 55 - col 6, line 2), and the certain cell [Fig 3, element C2 and Fig 4, element C2] of the matching board [Fig 4, elements: D3,A1,D2,B0] matched by the user with a second cell of the reference board comprising a second password symbol (Fig 4, elements: A1, C2, D1: col 5, lines 59-64).

Re claim 23: Martino teaches the displaying comprises displaying the matching board [Fig 3, elements: D3, A1, D2, B0; Fig 4, elements: B0, D3, A1, D2] comprising a plurality of cells and the reference board [Fig 4, elements: A3, C2, C1, D0] comprising a plurality of cells (Figures 3 and 4), and

one or more other cells of the matching board is matched with corresponding one or more cells of the reference board comprising a symbol, concurrently with matching of



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the certain cell of the matching board with the first cell of the reference board having the password symbol, so as to prevent revealing of a symbol of the cell of the reference board matched with the certain cell of the matching board as the password symbol of the user (col 2, lines 20-31; col 3, lines 14-29).

Re claim 24: Martino teaches removing one of the matching board and the reference board after a predetermined time from displaying the matching board and the reference board (col 5, lines 1-3 and lines 16-19).

Re claim 26: Martino teaches one of the matching board [Fig 3, elements: D3, A1, D2, B0; Fig 4, elements: B0, D3, A1, D2] and the reference board [Fig 4, elements: A3, C2, C1, D0] is moved with respect to the other so as to place the cells of the matching board adjacent to and match with the cells of the reference board (col 6, lines 3-10).

Re claim 27: Martino teaches:

the displaying of the reference board [Fig 4, elements: A3, C2, C1, D0] comprises displaying a first reference board comprising a plurality of cells having respective symbols, the first reference board including the first cell having a symbol which is the password symbol of the user, and a second reference board [consider Fig 3, elements: A2, B3, C0, D1 and fig 4, elements: D1, A2, B3, C0] comprising a plurality of cells having respective symbols, the second reference board including a symbol which is a second password symbol [Fig 3, element D1 and Fig 4, element D1] of the user (Figures 3 and 4; col 5, lines 20-33),

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the displaying of the matching board comprises displaying the matching board comprising the plurality of cells having respective symbols, the matching board including the certain cell having a symbol private to the user (col 5, lines 4-19), and

the first and second reference boards [Fig 3, elements: D3, A1, D2, B0, C1, D0, A3, C2] are moved with respect to the matching board so as to line up the password symbol and the second password symbol with the symbol of the matching board private to the user to enter the password (col 5, line 55 – col 6, line 10).

Re claim 28: Martino teaches one of the matching board and the reference board is moved with respect to the other so as to overlap to match the cells of the matching board with the cells of the reference board (col 5, lines 4-19 and col 6, lines 3-10).

Re claim 29: Martino teaches the displaying of the reference board comprises displaying the reference board [Fig 4, elements: A3, C2, C1, D0] comprising the plurality of cells having respective symbols (Abstract), the reference board [Fig 4, elements: A3, C2, C1, D0] including the first cell having a symbol which is the password symbol [Fig 4, element: C2] of the user (col 5, lines 55-64),

the displaying of the matching board comprises displaying the matching board comprising the plurality of cells having respective symbols, the matching board including the certain cell having a symbol private to the user (Figures 3 and 4; col 5, lines 55-67), and

the matching board is moved with respect to the reference board so as to overlap the cells of the matching board with the cells of the reference board, including the certain cell of the matching board having the symbol private to the user being

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overlapped with the first cell of the reference board having the password symbol to enter the password (col 5, line 55 – col 6, line 10).

Re claim 30: Martino teaches:

the displaying of the reference board [Fig 4, elements: A3, C2, C1, D0] comprises displaying the reference board [Fig 4, elements: A3, C2, C1, D0] comprising a plurality of cells having respective symbols [Fig 4, elements: A3, C2, C1, D0], the reference board [Fig 4, elements: A3, C2, C1, D0] including the first cell having a symbol which is the password symbol of the user (col 5, lines 55-64),

the displaying of the matching board comprises displaying the matching board comprising a plurality of cells having respective symbols, the matching board including the certain cell having a symbol private to the user (Figures 3 and 4; col 5, lines 55-67), and

the receiving of the password comprises receiving a password corresponding to a combination of the symbol of the matching board private to the user and the password symbol of the reference board privy to the user (Abstract; col 3, lines 30-50; col 5, lines 55-67).

Re claim 31: Martino teaches the displaying of the reference board [Fig 4, elements: A3, C2, C1, D0] further comprises displaying a second reference board [Fig 3, elements: A2, B3, C0, D1 and Fig 4, elements: D1, A2, B3, C0] comprising a plurality of cells having respective symbols, the second reference board [Fig 3, elements: A2, B3, C0, D1 and Fig 4, elements: D1, A2, B3, C0] including a cell having a second

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password symbol privy to the user [Fig 3, element D1 and Fig 4, element D1] (Abstract; col 3, lines 30-50; col 5, lines 55-67),

the displaying of the matching board further comprises displaying a second matching board comprising a plurality of cells having respective symbols, the second matching board including a cell having a second symbol private to the user (Abstract; col 3, lines 30-50; col 5, lines 55-67), and

the receiving of the password comprises receiving a password corresponding to a combination of the symbol private to the user and the password symbol, and a combination of the second symbol private to the user and the second password symbol (Abstract; col 3, lines 14-50).

Re claim 32: Martino teaches wherein one or more other cells of the matching board [Fig 3, elements: D3, A1, D2, B0; Fig 4, elements: B0, D3, A1, D2] is matched with corresponding one or more cells of the reference board [Fig 4, elements: A3, C2, C1, D0], concurrently with matching of the certain cell of the matching board with the cell of the reference board having the password symbol, so as to prevent revealing of the symbol of the cell of the reference board matched with the certain cell of the matching board as the password symbol of the user (col 2, lines 20-31; col 3, lines 14-29).

Re claim 33: Martino teaches one or more other cells of the matching board [Fig 3, elements: D3, A1, D2, B2; Fig 4, elements: B0, D3, A1, D2] is matched with corresponding one or more cells of the reference board [Fig 3, elements: C1, D0, A3, C2 and Fig 4, elements: A3, C2, C1, D0], concurrently with matching of the certain cell

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of the matching board with the cell of the reference board having the password symbol (col 5, lines 55-64), so as to prevent revealing of the symbol of the cell of the reference board matched with the certain cell of the matching board as the password symbol of the user (Abstract; (col 2, lines 20-31; col 3, lines 14-29).

Re claim 40: Martino teaches the symbols are one of numbers, characters, graphics, pictures, and a combination thereof (Figures 3 and 4 teach a display containing letters and numbers; col 6, lines 3-10).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martino et al (U.S. Pat 5276314 A), as cited in the IDS dated 08 February 2005, hereinafter referred to as Martino, in view of Pimpo (U.S. Pat 6021653 A), hereinafter referred to as Pimpo.

Re claim 25: Martino teaches the reference board is refreshed to display the one or more cells so as to match the cells of the matching board with the cells of the reference board (col 5, lines 20-33 and lines 55-67).

However, Pimpo teaches:

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the response to the one or more cells of the reference board [Fig 1, ring: LMN] corresponding to the one or more other cells of the matching board [Fig 1, ring: OPQ] not being displayed where one of the matching board and the reference board is moved with respect to the other (Fig 1; col 5, lines 52-66; the Examiner notes the tumbler rings as shown in Figures 1, 3 and 6 contain one or more cells that are not being displayed when the board are moved with respect to the other).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the teachings of Martino with the teachings of Pimpo, for the purpose of providing rotating dials on a user interface while best utilizing the user interface.

### ***Conclusion***

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the text of the passage taught by the prior art or disclosed by the examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure

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relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DARREN SCHWARTZ whose telephone number is (571)270-3850. The examiner can normally be reached on 7am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571)272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. S./

Examiner, Art Unit 2435

/Kimyen Vu/

Supervisory Patent Examiner, Art Unit 2435